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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,995	10/31/2001	Kazuyuki Shinno	101188-34	7355

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EXAMINER

MOAZZAMI, NASSER G

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n N .

09/998,995

Applicant(s)

SHINNO, KAZUYUKI

Examiner

Nasser G Moazzami

Art Unit

2187

-- The MAILING DATE of this c mmunication appears n the c ver sheet with the corresp nd nc address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-14 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/26/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Information Disclosure Statement***

2. The Information Disclosure Statement submitted by applicant on 11/26/2004 has been considered. See attached PTO-1449.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 recites the limitation "said output" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tani et al. (U.S. Patent No. 5809078) in view of Nakayama et al. (U.S. Patent No. 5920893).

As per claims 1, 3-4 and 11-12, Tani discloses a data storage system comprising at least one data sending/receiving node [**transmission node or receiving node (see Fig. 1)**] and a relay node [**relay node 10 (see Fig. 1 and 2)**] being provided between said data sending/receiving node and a network which is for relaying data between said data sending/receiving node and said network [**network connected to communication interface 21 or 22 (column 1, lines 19-30)**], comprising: a meta-data registering means for registering data processes which should be conducted in said relay node as meta-data, and a data processing means for conducting data process in accordance with the processes defined by the meta-data registered in said meta-data registering means; wherein meta-data designated by said data sending/receiving node is selected from said meta-data registering means, and data sent from said data sending/receiving node or data received by said data sending/receiving node are processed in accordance with the processes defined by the selected meta-data [**data management section 14 in the relay node manages control and object of the relay node between the receiving and transmitting nodes includes a data format conversion (column 1, lines 30-56)**].

Tani discloses the claimed invention, but fails to specifically disclose the details of meta-data registering means for registering data processes and a data processing

means for conducting data process in accordance with the process defined by the meta-data registered.

Nakayama teaches a plurality of host computers having various different I/O interfaces, a storage control for controlling I/O to/from the host computers and a host interface management table for managing the data format of the host computer interface of each host computer, wherein the storage control is made up of control processors each including a data format converting unit for converting the data format into a predetermined data format **[column 2, lines 1-67]**.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the current invention to convert the data format from one form to another as being taught by Nakayama into Tani's relay node in order to be able to share data among host computers having various interfaces **[column 1, lines 5-10]**.

As per claim 2, Tani discloses that the relay node comprises sending/receiving data memory means for storing data sent/received by said data sending/receiving node via the relay node **[relay node comprises a data storing section, a data receiving section, a data transmitting section and a node management section (see Fig. 1)]**.

7. Claims 9-10 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tani in view of Nakayama and further in view of Khan et al., hereinafter Khan (U.S. Patent No. 6,199,054).

As per claims 9-10 and 13-14, combination of Tani and Nakayama disclose the claimed invention, but fails to specifically disclose a charge calculating means for calculating a charge for using the system based on the number of time and/or the type of the process and based on using the amount of computer resources.

Khan discloses a method for dynamically computing and assessing cost associated with the services provided by a service provider, wherein the charge calculation are based on number of parameters, including size of the document, type of the document, type of encryption, the type of services the user subscribes or based on the payload. Khan further discloses visually updating the billing information in order to have flexible, secure and fair charge calculation to the user [**column 2, lines 3-4, and 20-34; and column 4, line 59 through column 5, line 8**]).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the current invention to use dynamic computation of the cost as being taught by Khan into Tani and Nakayama's data storage system in order to have flexible, secure and fair charge calculation to the user.

#### ***Allowable Subject Matter***

8. Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G Moazzami whose telephone number is (571) 272-4195. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**NASSER MOAZZAMI**  
**PRIMARY EXAMINER**

  
12/14/2004